



FIG. 1

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A SCHEMA EVOLVER RECEIVES AN XML DOCUMENT THAT INDICATES ONE OR MORE CHANGES TO BE MADE TO AN EXISTING XML SCHEMA

204

THE SCHEMA EVOLVER GENERATES, BASED ON THE EXISTING XML SCHEMA AND THE XML DOCUMENT, AN EVOLVED XML SCHEMA THAT INCORPORATES ALL OF THE CHANGES INDICATED BY THE XML DOCUMENT

206

THE SCHEMA EVOLVER GENERATES, BASED ON THE EVOLVED XML SCHEMA, "EVOLVE" SQL STATEMENTS THAT, WHEN EXECUTED BY A DATABASE SERVER, CAUSE THE DATABASE SERVER TO MAKE DATABASE STRUCTURES CONFORM TO THE EVOLVED XML SCHEMA

208

THE SCHEMA EVOLVER GENERATES "ROLLBACK" SQL STATEMENTS THAT, WHEN EXECUTED BY A DATABASE SERVER, CAUSE THE DATABASE SERVER TO REVERSE THE EFFECTS OF THE "EVOLVE" SQL STATEMENTS

210

THE DATABASE SERVER EXECUTES THE "EVOLVE" SQL STATEMENTS

212

HAS AN ERROR OCCURRED WITH REGARD TO THE EXECUTION OF THE "EVOLVE" SQL STATEMENTS?

YES

NO

214

THE EVOLUTION IS FINISHED

216

THE DATABASE SERVER EXECUTES AS MANY OF THE "ROLLBACK" SQL STATEMENTS AS ARE NECESSARY TO REVERSE THE EFFECTS OF THE ALREADY EXECUTED "EVOLVE" SQL STATEMENTS

FIG. 2

FIG. 3

